

CLAIMS

1. A self-orienting caster for pieces of furniture and the like, comprising a pair of wheels (25, 26), which are supported so that they can rotate about a horizontal axis (A) by a supporting body (2), which has a  
5 cylindrical recess (4) that has a vertical axis (B) and is open upward and axially offset with respect to said horizontal axis (A), and in which a pivot (40) for the caster (1) is inserted rotatably, said pivot being insertable in a receptacle of the piece of furniture in which the caster is to be fitted, characterized in that it comprises a through seat (5) formed in said body (2),  
10 a tubular element (6) that is driven through said seat coaxially to said horizontal axis (A) and has two cylindrical tubular portions (7, 8) that lie on opposite sides of said body (2) in order to rotatably support said wheels (25, 26), means (10-18) being provided for the axial and rotational locking of said tubular element (6) in said seat (5) and means (19-22) being provided  
15 for retaining said wheels (25, 26) on said tubular portions (7, 8).

2. The caster according to claim 1, characterized in that said means (19, 20) for retaining said wheels are constituted by annular slots (19, 20), which are formed at the free ends of said tubular portions (7, 8) and form  
20 respective annular lips (21, 22), and by collars (36, 37), which are formed in said wheels (25, 26) and engage in said slots (19, 20) so that they are retained by said collars (36, 37) and retain said wheels (25, 26) on said tubular portions (7, 8).

3. The caster according to claim 1, characterized in that said means (10-18) for locking said tubular element (6) in said seat (5) comprise two  
25 annular ridges (11, 12), which surround said tubular element (6) and form a channel (13) between them, and an annular protrusion (16), which is formed in said seat (5) and can be engaged by forcing in said channel (13), said annular protrusion (16) having two flat surfaces (17, 18), which are associated with respective flat surfaces (14, 15) of said tubular element (6)  
30 in order to prevent the rotation of said tubular element in said seat (5).

4. The caster according to one of claims 1 to 3, characterized in that annular ridges (38, 39) protrude from opposite sides of said supporting body (2) and surround coaxially said tubular portions (7, 8), and in that said wheels (25, 26), on the side directed toward said body (2), are provided with  
5 annular grooves (34, 35) that are suitable to receive said ridges.

5. The caster according to one of claims 1 to 4, characterized in that said tubular portions (7, 8) form respective rolling tracks for the rolling elements (27) of bearings (23, 24) in order to rotatably support said wheels.

6. The caster according to one of claims 1 to 5, characterized in that  
10 said seat (5) is ovalized in the direction of said vertical axis (B), in that said flat surfaces (14-18) are orientated in the direction of ovalization of said seat, and in that elastic means (57) are interposed between said tubular element (6) and said body (2) and act so as to raise said body (2) with respect to said tubular element (6).

15 7. The caster according to claim 6, characterized in that it comprises a device for self-braking said wheels (25-26), which consists of elastic means (57), which are interposed between said tubular element (6) and said body (2) and are sized so as to keep said body (2) raised with respect to said tubular element (6) in a position for braking the wheels, at which said ridges  
20 (38,39) are in friction contact with the walls of said grooves when the caster is not loaded, and keep said body lowered with respect to said tubular element (6) in a position in which the wheels are released and at which said ridges (38, 39) are free to slide in said grooves (34, 35) when the caster is loaded.

25 8. The caster according to claim 7, characterized in that said elastic means are constituted by a spring (57), which is accommodated in a seat (56) of said body (2) that is open toward said seat (5) and lies above said tubular element (6) and acts thereon.

9. The caster according to claim 8, characterized in that a hole (55) is  
30 formed in said body (2), in a diametrically opposite position with respect to

said seat (56) of the spring (57), and is suitable to receive a screw (60) that acts on said tubular element (6) in order to lift it into the position for releasing said wheels.

10        10. The caster according to claim 5, characterized in that said supporting bearings (23, 24) are constituted by an annular cage (29), which is provided with a plurality of receptacles (28) for said rolling elements (27) formed by axial partitions (61), means (62-64; 65-67) being provided for retaining said rolling elements in said receptacles.

10        11. The caster according to claim 10, characterized in that said retention means are constituted by teeth (64), which protrude from said partitions (61) into said receptacles (28).

15        12. The caster according to claim 10, characterized in that said retention means are constituted by a ring (65), which is associated with said cage (29) by means of an annular flange (66) that protrudes from one of its faces and engages in slits (67) formed in the ends of said partitions (61).

13. The caster according to one of the preceding claims, characterized in that said pivot (40) can rotate in a bush (41) that is inserted in said recess (4) and is retained axially by an annular lip (46), which is formed on the rim of said recess and is folded onto said bush.

20        14. The caster according to one of the preceding claims, characterized in that it comprises an element (48) for covering said body (2) that is shaped so as to mate with its contour, said element (48) being locked on said body by an annular lip (50) formed on the rim of said recess (4).